

Claim 1. (currently amended) A method for separating a mixture of ions in a sample employing a microfluidic device comprising a microchannel having a neutral substantially saturated ~~norbornene~~ norbornene based polymer surface and two electrodes for creating an electrical field in said microchannel, said method comprising:

introducing said sample into said microchannel comprising an aqueous dispersion of a sieving polymer under the electrical influence of said field, whereby ions in said sample migrate in said aqueous dispersion to separate into fractions.

Claim 2. (original) A method according to claim 1, wherein said ions are nucleic acid ions.

Claim 3. (original) A method according to claim 1, wherein said sieving polymer is an acrylamide.

Claim 4. (original) A method according to claim 1, wherein said norbornene based polymer is a hydrocarbon copolymer.

Claim 5. (currently amended) A method according to ~~claim 1~~ claim 4, wherein said hydrocarbon copolymer is a copolymer of norbornene derivatives.

Claims 6-19 (canceled)